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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,125	08/10/2001	Lich Le	WIDC-032/00US	4239
23446	7590	12/08/2005	EXAMINER	
MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			MEHRA, INDER P	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/927,125	<b>Applicant(s)</b> LE ET AL. <span style="float: right;">Agn</span>	
	<b>Examiner</b> Inder P. Mehra	<b>Art Unit</b> 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,10,11,13 and 16-22 is/are rejected.
- 7) ☒ Claim(s) 3,7-9,12,14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/24/02</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This office action is in response to application dated:9/29/05. Claims 1-22 are pending, out of which claims 1, 4-5, 10 and 22 have been amended.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,10, 19-20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by **Wright et al** (US Patent No. 6,078,959), hereinafter, Wright.

For claim 1, Wright discloses “a method for allocating a plurality of transmission slots to a first wireless device (**subscriber device, col. 1 lines 19-21, each base station 102 of FIG. 1 employs a time division multiple access/frequency division duplex, i.e., TDMA/FDD, frame/slot structure for transmission and reception of communications to and from subscribers 103, refer to col. 4 lines 10-20**); wherein the plurality of transmission slots includes a plurality of allocated transmission slots (**allocated a connection resource, it is allocated a channel 204, i.e., one or more time slots 203 over a plurality of time frames 202, refer to col. 4 lines 25-27**) and a plurality of unallocated transmission slots (“**If there are available connection resources to allocate to the network-originated connection request 402---**”, refer to col. 5 lines 39-40); , the method comprising:

- establishing a first polling rate (the poll message transmission rate on a server system can be maintained at a rate that is fundamentally commensurate with the traffic arrival rate for a first wireless device, wherein the first polling rate allocates at least a first of the plurality of allocated transmission slots to the first wireless device (subscriber device) (At time slot 804, the server system transmits a poll message 803, refer to col. 9 lines 29-31; further, the base station transmits a poll message (which means polling the subscribers to test subscribers for messages to be transmitted) in a time slot at the downlink frequency to indicate that a subscriber may transmit a resource request message in a time slot at the uplink frequency, for a connection request to the base station. In a presently preferred embodiment, the poll message indicates one or more time slots in which a subscriber may transmit a resource request message to the respective base station, refer to col. 6 lines 5-15).
- polling the first wireless device (poll message in a time slot at the downlink frequency to indicate that a subscriber (wireless device) may transmit a resource request message in a time slot at the uplink frequency , refer to col. 6 lines 5-15) according to the established first polling rate (in which a subscriber may transmit a resource request message to the respective base station, refer to col. 6 lines 5-15);
- recording the upload activity by the first wireless device in response to the polling', and allocating a first of the plurality of unallocated transmission slots to the first wireless device based upon the recorded upload activity (they may simply be queued

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at the respective server system, awaiting a connection resource allocation, refer to col. 1 lines 45-47).

- A processor and storage device, as **recited by claim 10**, (processing of the queued subscriber-originated connection requests, refer to col. 11 lines 55-57).

For claim 19, Wright discloses “ method for operating a wireless device, the method comprising: receiving a first polling signal from an access point; responding to the first polling signal during a first allocated transmission slot by uploading a first amount of data; receiving a second polling signal from the access point, wherein the second polling signal corresponds to the first amount of data uploaded; uploading a second amount of data to the access point responsive to the second polling signal from the access point, refer to abstract and col. 16 lines 35-55.

For claims 20 and 22, Wright disclose “wherein the first polling signal and the second polling signal are associated with a single polling cycle”, refer to abstract and col. 16 lines 35-55.

4. Claims 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by **Quayle et al** (US Patent No. 6, 865, 169), hereinafter, Quayle.

For claims 16-18, Quayle discloses “a system for allocating one of a plurality of transmission slots, refer to fig. 14 and col. 12 line 63 through col. 13 line 20; the system comprising:

- an access point (RNC 14), ;

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- a prioritizer connected to the access point (Scheduler in RNC 14); and
- a priority storage device connected to the prioritizer (Buffer or “Packet Queue” in RNC14, refer to fig. 14) for queuing)
- a content provider in communication with the access point. The system of claim 16, further comprising: a wireless device in communication with the access point **as recited by claim 17, refer to col. 1 lines 65-67.**
- a wireless device in communication with the access point, **as recited by claim 18,** refer to 17 in fig. 1.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wright et al**, hereinafter, Wright, as above, in view of **Hodzic et al** (US Patent No. 6,097,707), hereinafter, **Hodzic**.

For claims 2 and 11, Wright discloses all the limitations of subject matter, with the exception of the following limitations, which are disclosed by Hodzic, as follows:

“determining a first priority for the first wireless device, wherein the first priority is based upon the recorded upload activity” (When the system load profile (as determined by the algorithm) exceeds this threshold, the value of k determining the number of idle cycles imposed

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upon a TU would be adjusted according to a priority list, with higher priority TUs receiving a lower k number, refer to col. 11 lines 17-24).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability “determining a first priority for the first wireless device, wherein the first priority is based upon the recorded upload activity”. This capability can be implemented in access point or base station. The motivation for using this capability in the access point being that it optimizes the utilization of the shared channel.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Wright et al**, hereinafter, Wright, as above, in view of **Minnick et al** (US Patent No. 6,370381), hereinafter, Minnick.

For claim 4, Wright discloses all the limitations of subject matter, with the exception of the following limitations, which are disclosed by Minnick, as follows:

- wherein recording the upload activity comprises: recording an amount of data uploaded from the first wireless device (store and forward function for storing the data messages transmitted by a mobile unit, refer to col. 26 lines 26-30);

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of recording the upload activity comprises: recording an amount of data uploaded from the first wireless device. This capability can be implemented in access point or base station. The motivation for using this capability in the access point being that it optimizes the utilization of the shared channel.

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8. Claims 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wright et al**, hereinafter, Wright, as above, in view of **Jones et al** (US Patent No. **6,490,256**), hereinafter, Jones.

For claim 5, Wright discloses all the limitations of subject matter, with the exception of the following limitations, which are disclosed by Jones, as follows:

- wherein recording the upload activity comprises: recording an indicator that more data needs to be uploaded from the first wireless device, refer to col. 8 lines 15-30.
- a method for operating a wireless device, the method comprising: receiving a first polling signal from an access point; responding to the first polling signal during a first allocated transmission slot by uploading a first set of data and an additional-upload indicator; receiving a second polling signal from the access point, wherein the second polling signal is responsive to the additional-upload indicator; uploading a second set of data to the access point responsive to the second polling signal from the access point, refer to abstract and col. 16 lines 35-55 and col. 8 lines 20-30.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of recording the upload activity comprises: recording an indicator that more data needs to be uploaded from the first wireless device. This capability can be implemented in access point or base station. The motivation for using this capability in the access point being that it optimizes the utilization of the shared channel.



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9. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Quayle et al** (US Patent No. 6, 865, 169), hereinafter, Quayle in view of **Matsuno** (US Patent No. **5,613,211**).

For claims 6 and 13, Quayle discloses “a method for allocating one of a plurality of transmission slots, wherein the plurality of transmission slots includes a plurality of allocated transmission slots and a plurality of unallocated transmission slots, the method comprising: determining a first priority factor for a first wireless device, the first priority factor based upon an amount of data uploaded by the first wireless device to an access point during a first of the plurality of allocated transmission slots; determining a second priority factor for a second wireless device, the second priority factor based upon an amount of data uploaded by the second wireless device to the access point during a second of the plurality of allocated transmission slots; comparing the first priority factor and the second priority factor; identifying the first wireless device as a priority wireless device based upon the comparison; and allocating a first of the plurality of unallocated transmission slots to the priority wireless device,( **The scheduler receives these requests from all of the user equipment and the role of the scheduler is to allocate time on a traffic channels via time slots in accordance with the amount of data each user equipment has to send and also in accordance with the tier priority assigned to that subscriber's user equipment. Additionally, its tier of service, providing further accuracy to the prioritization scheme, determines the polling frequency of each subscriber terminal, refer to col. 13 lines 12-20”).**

Quayle does not disclose expressly “comparing the first priority factor and the second priority factor”, which is disclosed by **Matsuno**, refer to col. 6 lines 50-55.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “**comparing the first priority factor and the second priority factor.**” The motivation for using this capability in the access point being that it provides priority to preferable subscribers.

***Allowable Subject Matter***

10 Claims 3, 7-9, 12 and 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

11. Applicant's arguments filed 9/29/05 have been fully considered but they are not persuasive.

Applicant argues, “Applicants respectfully submit that Wright does not fairly describe polling the base station. In fact, it is the base station that transmits a poll message to the subscribers. See, e.g., Wright at col. 6, lines 9-13. Applicants respectfully submit that an anticipation rejection of claim 1 based on the base station as described in Wright cannot be consistently and logically maintained. Since Wright does not describe a first wireless device as set forth in claim 1, Wright cannot anticipate claim 1”.

In response, it is stated that first wireless device is subscriber device or subscriber-oriented connection, refer to “**the server system (base station, col. 6 line 1) transmits a poll message 803, refer to col. 9 lines 29-31; further, the base station transmits a poll message**

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(which means polling the subscribers to test subscribers for messages to be transmitted) in a time slot at the downlink frequency to indicate that a subscriber may transmit a resource request message in a time slot at the uplink frequency, for a connection request to the base station. In a presently preferred embodiment, the poll message indicates one or more time slots in which a subscriber may transmit a resource request message to the respective base station, refer to col. 6 lines 5-15).

Applicant argues, "Furthermore. claim 19 also recites. in part that the second polling signal corresponds to the first amount of data uploaded. Applicant respectfully draw the attention of the Examiner to the fact that the second polling signal corresponds to an amount. It is respectfully submitted that Wright does not describe such a correspondence".

In response, it is stated that Wright discloses "Subscriber-originated traffic, circuit switched or packet data, cannot be transmitted until the respective subscriber successfully transmits a resource request message in response to a poll message". refer to col. 7 lines 55-60 and col. 6 lines 37-35

Applicant argues, "United States Patent No. 6,865,165 B1 does not list Quayle as an inventor. Instead, United States Patent No. 6,865,165 lists KG Hmtunen as the sole inventor on the face of the patent.

In response, it is stated that United States Patent No. 6,865,165 should be 6,865,169. Office action has been corrected accordingly.

**In light of above explanation, arguments by applicant are not persuasive.**

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***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder P Mehra  
Examiner  
Art Unit 2666

  
